

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

### LISTING OF CLAIMS

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1. (currently amended) A method for auditing an optical network, comprising the steps of:

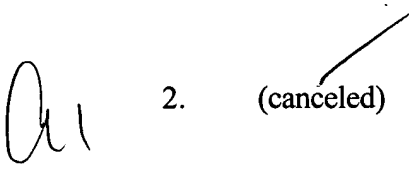
transmitting a query to a hardware device in said optical network;

receiving a response to said query;

analyzing said response to said query; ~~and~~,

producing a report of said response and said analysis; and

transmitting a second query to said hardware device, said second query based on said response to said first query, in order to gather status information of said hardware device.

2.  (canceled)

3. (original) The method described in Claim 1, wherein said report includes recommendations associated with the management of said network.

4. (original) The method described in Claim 1, wherein at least a portion of said network is implemented as a DWDM optical network.

5. (original) The method described in Claim 1, wherein said hardware device is a portion of said network's infrastructure.

6. (original) The method described in Claim 1, wherein said hardware device is a DWDM device.

7. (original) The method described in Claim 1, wherein said step of transmitting said transmitted query codes is accomplished entirely within said optical network.

8. (original) The method described in Claim 1, wherein said transmitted query codes are generated by a dedicated network audit device.

9. (original) The method described in Claim 1, wherein said receiving of said received responses is accomplished entirely within said network.

10. (original) The method described in Claim 1, wherein said first query code requests information related to the part number and location in said optical network of said hardware device.

11. (original) The method described in Claim 1, wherein said second query code is determined by database reference to the hardware type of said hardware device.

12. (currently amended) The method described in Claim 2-1, wherein said a further step of analyzing said responses to said queries is performed by automated intelligent decision-making.

13. (currently amended) A system for auditing an optical network, comprising:

~~Two~~ two or more computer systems;

~~An~~ an optical network coupled to said computer systems, said network

communicatively coupled with said computer systems, said optical network

comprising an optical medium and optical devices for providing a communication link between said computer systems; and,

A ~~a~~ device coupled to said optical network ~~and that is~~ capable of transmitting queries in said optical network to said optical devices[.]

wherein first and second queries are transmitted to at least one of said optical devices  
and wherein the second query is based on said response to said first query.

14. (currently amended) A system as described in Claim ~~12-13~~ wherein at least a portion of said optical network is implemented as a DWDM optical network.

15. (currently amended) A system as described in Claim ~~12-13~~ wherein said system further comprises a device coupled to said optical network capable of receiving responses to said transmitted queries.

16. (currently amended) A system as described in Claim ~~12-13~~ wherein at least one of said computer systems comprises a data storage device, capable of storing instructions for transmitting said queries in said optical network.

17. (currently amended) A system as described in Claim ~~12-13~~ wherein at least one of said computer systems comprises a data storage device, capable of storing instructions for receiving responses to said queries in said optical network.

18. (currently amended) A system as described in Claim ~~12-13~~ wherein at least one of said computer systems is capable of automatically analyzing said responses to said queries.

19. (currently amended) A system as described in Claim ~~12~~13 further comprising a device capable of presenting said responses and said analysis in a user readable format.

20. (currently amended) A device for auditing an optical network, comprising:

~~A~~ a transmitting element coupled to said optical network;

~~A~~ a receiving element coupled to said optical network; and,

~~A~~ a computing element, coupled to said optical network, wherein said device for auditing an optical network is capable of formulating and transmitting queries to devices in said optical network and receiving responses to said queries[.]

wherein first and second queries are transmitted to at least one of said devices

and wherein the second query is based on said response to said first query.

21. (currently amended) A device as described in Claim ~~19~~ 20 wherein said device is further capable of automatically analyzing said responses to said queries.

22. (currently amended) A device as described in Claim ~~19~~ 20 wherein said device is further capable of presenting the results of said automatic analyzing in a user-readable format.

23. (currently amended) A device as described in Claim ~~19~~ 20 wherein said device is further capable of making recommendations for appropriate action in the management of said optical network.

24. (currently amended) A device as described in Claim ~~19~~ 20 wherein at least a portion of said optical network is implemented as a DWDM optical network.

25. (new) A computer useable medium having computer useable code

embodied therein causing a computer to perform operations comprising:

transmitting a query to a hardware device in said optical network;

receiving a response to said query;

analyzing said response to said query;

producing a report of said response and said analysis; and

transmitting a second query to said hardware device, wherein said second query is based on said response to said first query.

26. (new) The computer useable medium in Claim 25, wherein said report includes recommendations associated with the management of said optical network.

27. (new) The computer useable medium described in Claim 25, wherein at least a portion of said optical network is implemented as a DWDM optical network.

28. (new) The computer useable medium described in Claim 25, wherein said hardware device is a portion of said optical network's infrastructure.

29. (new) The computer useable medium described in Claim 25, wherein said hardware device is a DWDM device.

30. (new) The computer useable medium described in Claim 25, wherein said step of transmitting said query is accomplished entirely within said optical network.

31. (new) The computer useable medium described in Claim 25, wherein transmitted queries are generated by a dedicated network audit device.

32. (new) The computer useable medium described in Claim 25, wherein said receiving of said received responses is accomplished entirely within said optical network.

33. (new) The computer useable medium described in Claim 25, wherein said first query requests information related to a part number and location in said optical network of said hardware device.

34. (new) The computer useable medium described in Claim 25, wherein said second query is determined by database reference to the hardware type of said hardware device.

35. (new) The computer useable medium described in Claim 26, wherein a further step of analyzing said responses to said queries is performed by automated intelligent decision-making.

36. (new) A system for auditing an optical network, comprising:

transmitting means for transmitting a query to a hardware device in said optical network;

receiving means for receiving a response to said query;

analyzing means for analyzing said response to said query; and

report producing means for producing a report of said response, wherein said transmitting means transmits a second query to said hardware device, said second query being based on said response to said first query, in order to gather status information of said hardware device.

37. (new) The system described in Claim 36, wherein said report includes recommendations associated with the management of said network.

38. (new) The system described in Claim 36, wherein at least a portion of said optical network is implemented as a DWDM optical network.

39. (new) The system described in Claim 36, wherein said hardware device is a portion of said optical network's infrastructure.

40. (new) The system described in Claim 36, wherein said hardware device is a DWDM device.

41. (new) The system described in Claim 36, wherein said transmitting is accomplished entirely within said optical network.

42. (new) The method described in Claim 36, wherein said receiving is accomplished entirely within said optical network.

43. (new) The method described in Claim 36, wherein said first query requests information related to a part number and location in said optical network of said hardware device.

44. (new) The method described in Claim 36, wherein said second query is determined by reference to the hardware type of said hardware device.